CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.01/SMV/CSR-02/1082c/CEMENT/2015-16 Date: 01.03.2016

TEST REPORT ON CEMENT

* CUSTOMER	:	**Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.
*AGENCY	:	**Mr. S.M. Vasu,** No. 76, 2nd Main, 3rd Stage, KEB Colony, Basaveshwaranagara, Bangalore.
*NAME OF THE WORK	:	Construction of culverts in Ward No. 01 of Yelahanka Sub Division, BBMP, Bangalore.
REFERENCE	:	AEE/BBMP/YSD/AE-1/38/2015-16 Dated: 26.02.2016
SAMPLE ID	:	Cement
SAMPLE RECEIVED ON	:	26.02.2016
PERIOD OF TESTING	:	26.02.2016 to 01.03.2016

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4) 1988(RA-2009)	28.50 %	-
2	a) Initial Setting Time	IS-4031 (Part -5) 1988(RA-2009)	155 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988(RA-2009)	425 Minutes	Not More than 600 Minutes
3	Soundness by Le Chartlier Method	IS-4031 (Part-3) 1988(RA-2009)	1 mm	Not more than 10mm

*Information is furnished by the Customer/Representative.

Civil-Tech Consultants & Engineers Bangalore

Note:

⇒ The report shall not be reproduced, except in full, without the written approval of the laboratory.

⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

****

VISHWANATH. I.A.
Chief Executive Officer

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.01/SMV/CSR-02/1082c/SAND-Gradation/2015-16 : 01.03.2016

TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. S.M. Vasu,**
No. 76, 2nd Main, 3rd Stage, KEB Colony, Basaveshwaranagara, Bangalore.

*** Name of Work** : Construction of culverts in Ward No. 01 of Yelahanka Sub Division, BBMP, Bangalore.

Reference : AEE/BBMP/YSD/AE-1/38/2015-16 Dated: 26.02.2016

Technical Reference : IS : 2386 Part 1 - 1963 RA-2007

Sample ID : Fine Aggregates .

Sample Received on : 26.02.2016

Date of Testing : 01.03.2016

Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Spec.Limits as per IS 383-1970 (RA- 2007)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	93.22	90-100	90-100	90-100	95-100
2.36	76.99	60-95	75-100	85-100	95-100
1.18	59.34	30-70	55-90	75-100	90-100
600 Micron	37.20	15-34	35-59	60-79	80-100
300 Micron	15.37	5-20	8-30	12-40	15-50
150 Micron	4.10	0-10	0-10	0-10	0-15

* Information is furnished by the Customer/Representative

Remarks : This sample is under Zone-II specific limits.

Civil-Tech Consultants & Engineers Bangalore

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

****

VISHWANATH. I.A.
Chief Executive Officer

AE-1
@ 113
AEE

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.01/SMV/CSR-02/1082c/AGG/GR/2015-16 : 01.03.2016

TEST REPORT ON COARSE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. S.M. Vasu,**
No. 76, 2nd Main, 3rd Stage, KEB Colony, Basaveshwaranagara, Bangalore.

*** Name of Work** : Construction of culverts in Ward No. 01 of Yelahanka Sub Division, BBMP, Bangalore.

Reference : AEE/BBMP/YSD/AE-1/38/2015-16 Dated: 26.02.2016

Technical Reference : IS : 2386 Part 1 -1963 RA-2007

Sample ID : Coarse Aggregates (40mm)

Sample Received on : 26.02.2016

Date of Testing : 01.03.2016

Total Wt. of Aggregates in gms= **10000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Spec.Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
80	100	100	-
63	100	-	100
40	96.94	95-100	85-100
20	34.20	30-70	0-20
10	12.67	10-35	0-5
4.75	2.42	0-5	-

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits.

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory
3. Any Query regarding the report must be reported within 30 days from the date of testing.

****

VISHWANATH. I.A.
Chief Executive Officer

AE1
on 1/3
AEE

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.01/SMV/CSR-02/1082c/AGG/GR/2015-16 : 01.03.2016

TEST REPORT ON COARSE AGGREGATES

* Customer	: **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.
* Agency	: **Mr. S.M. Vasu,** No. 76, 2nd Main, 3rd Stage, KEB Colony, Basaveshwaranagara, Bangalore.
* Name of Work	: Construction of culverts in Ward No. 01 of Yelahanka Sub Division, BBMP, Bangalore.
Reference	: AEE/BBMP/YSD/AE-1/38/2015-16 Dated: 26.02.2016
Technical Reference	: IS : 2386 Part 1 -1963 RA-2007
Sample ID	: Coarse Aggregates (20mm)
Sample Received on	: 26.02.2016
Date of Testing	: 01.03.2016

Total Wt. of Aggregates in gms= **5000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Spec.Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
40	100	100	100
20	96.58	95-100	85-100
10	32.20	25-55	0-20
4.75	3.66	0-10	0-5

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

****

VISHWANATH. I.A.
Chief Executive Officer

AE, 1/3 AEE

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory
An ISO 9001:2008 Certified Company
NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.01/SMV/STEEL/2015-16 01.03.2016

TEST REPORT ON REINFORCEMENT STEEL

Customer : **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.

Agency : **Mr. S.M. Vasu,** No. 76, 2nd Main, 3rd Stage, KEB Colony, Basaveshwaranagara, Bangalore.

Name of the Work : Construction of culverts in Ward No. 01 of Yelahanka Sub Division, BBMP, Bangalore.

Reference : AEE/BBMP/YSD/AE-1/38/2015-16 Dated: 26.02.2016

Date of Test : 01.03.2016

Technical Reference : IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	12	0.89	519	562	13.50	O.K	O.K

Note:

⇒ The report shall not be reproduced, except in full, without the written approval of the laboratory.

⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory
An ISO 9001:2008 Certified Company
NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/W.No.01/SMV/STEEL/2015-16 01.03.2016

TEST REPORT ON REINFORCEMENT STEEL

Customer	:	**Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.
Agency	:	**Mr. S.M. Vasu,** No. 76, 2nd Main, 3rd Stage, KEB Colony, Basaveshwaranagara, Bangalore.
Name of the Work	:	Construction of culverts in Ward No. 01 of Yelahanka Sub Division, BBMP, Bangalore.
Reference	:	AEE/BBMP/YSD/AE-1/38/2015-16 Dated: 26.02.2016
Date of Test	:	01.03.2016
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	16	1.58	522	563	13.60	O.K	O.K

Civil-Tech Consultants & Engineers Bangalore

Note:

⇒ The report shall not be reproduced, except in full, without the written approval of the laboratory.

⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

AE1 01/3 AEE

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.01/SMV/CSR-02/1082c/Precast Slab/2015-16

21.03.2016

CEMENT CONCRETE CORE (PRECAST SLAB) TEST REPORT

* Customer	:	**Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.
* Agency	:	**Mr. S.M. Vasu,** No. 76, 2nd Main, 3rd Stage, KEB Colony, Basaveshwaranagara, Bangalore
* Name of work	:	Construction of culverts in Ward No. 01 of Yelahanka Sub Division, BBMP, Bangalore.
Reference	:	AEE/BBMP/YSD/AE-1/38/2015-16 Dated: 26.02.2016
Techinical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Sample ID	:	Precast Covering Slab
Sample Received on	:	17.03.2016
Date of Testing	:	21.03.2016

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	78.00	0.384	2507.30	1.56	0.950	32.4	16.50	17.82	16.92	21.16
2	50.00	79.00	0.392	2527.14	1.58	0.955	32.6	16.59	17.92	17.11	21.39
3	50.00	80.00	0.398	2533.75	1.60	0.960	32.7	16.67	18.00	17.28	21.60

* Information is furnished by the Customer/Representative

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

****

Civil-Tech Consultants & Engineers Bangalore

VISHWANATH. I.A.
Chief Executive Officer

AE-1 @ 21/3 AEE

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: .: CTCE/BBMP/W.No.01/SMV/CSR-02/1082c/CUBE/2015-16 16.03.2016

TEST REPORT ON COMPRESSIVE STRENGTH OFCONCRETE CUBES

* Customer	: **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.
* Agency	: **Mr. S.M. Vasu,** No. 76, 2nd Main, 3rd Stage, KEB Colony, Basaveshwaranagara, Bangalore.
* Name of the work	: Construction of culverts in Ward No. 01 of Yelahanka Sub Division, BBMP, Bangalore.
Reference	: AEE/BBMP/YSD/AE-1/38/2015-16 Dated: 26.02.2016
* Sample ID	: Cement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
* Grade of Concrete	: M_{20}
Compressive Strength as on	: 7^{th} day
Sample Received on	: 16.03.2016

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	09.03.2016	16.03.2016	8.098	358.7	15.94
2	09.03.2016	16.03.2016	8.137	365.8	16.26
3	09.03.2016	16.03.2016	8.245	373.5	16.60

* Information is furnished by the Customer/Representative

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

.....

VISHWANATH. I.A.
Chief Executive Officer

AE1 16/3 AEE

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: .: CTCE/BBMP/W.No.01/SMV/CSR-02/1082c/CUBE/2015-16 17.03.2016

TEST REPORT ON COMPRESSIVE STRENGTH OFCONCRETE CUBES

* Customer	: **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.
* Agency	: **Mr. S.M. Vasu,** No. 76, 2nd Main, 3rd Stage, KEB Colony, Basaveshwaranagara, Bangalore.
* Name of the work	: Construction of culverts in Ward No. 01 of Yelahanka Sub Division, BBMP, Bangalore.
Reference	: AEE/BBMP/YSD/AE-1/38/2015-16 Dated: 26.02.2016
* Sample ID	: Cement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
* Grade of Concrete	: M_{20}
Compressive Strength as on	: 7^{th} day
Sample Received on	: 17.03.2016

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	10.03.2016	17.03.2016	8.218	365.4	16.24
2	10.03.2016	17.03.2016	8.326	373.9	16.62
3	10.03.2016	17.03.2016	8.415	385.4	17.13

* Information is furnished by the Customer/Representative

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

****

Civil-Tech Consultants & Engineers Bangalore

VISHWANATH. I.A.
Chief Executive Officer

AE1 @ 17/3 AEE

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com